TDARS News Letter

G3ZME G6ZME

TELFORD AND DISTRICT AMATEUR RADIO SOCIETY

www.TDARS.org.uk FOUNDED 1969 www.TelfordHamfest.co.uk

Issue 298 January/February 2021

www.TDARS.org.uk Programme www.telfordhamfest.co.uk

IMPORTANT NOTICE: ***ALL MEETINGS AT LWVH POSTPONED UNTIL FURTHER NOTICE***

Dates and Events that follow are subject to change at short notice.

January 20	**Running a Special Event Station—Simon G0UFE (Webex) 8pm**
January 27	**Under a Fiver Construction Competition—ONLINE EXPERIMENT!**
February 3	**Committee Meeting (Webex). Rag-chew net: 144.600MHz +/- FM. All welcome**
February 10	**'Working Pedestrian Mobile' (Webex) Brian Nuttall M0OYG. 8pm**
February 17	**'Introduction to the Long Mynd Mapping Programme. Heather M0HMO**
February 24	**Guest speaker (Webex) - awaiting confirmation.**
March 3	**Committee Meeting (Webex). Rag-chew net: 144.600MHz +/- FM. All welcome**
March 10	**'Going on a DX-Pedition' by Dom Smoth M0BLF. 8pm**
March 17	**Main Construction Competition—ONLINE Entries / Voting**
March 24	**'Software for Amateur Radio' - Chris Colclough G1VDP. 8pm**
March 31	**ANNUAL GENERAL MEETING 8pm. Probably Online. Arrangements to follow.**

NOTE:- **Most meetings currently take place on-line via Webex. Unless otherwise stated these meetings are open to Members Only. If you don't receive an e-mail invitation, and you have paid up, then please contact Graham G7LMF (e-mail address below)**

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For Equipment Loans & Returns contact Don M0TBQ.

For "Beyond Exams" scheme (Club or Individual) —enquiries to Graham G7LMF

For Morse Training and Morse Proficiency Tests Martyn G3UKV or Eric M0KZB.

Radio Amateur Exams- Latest: Contact Graham G7LMF training@tdars.org.uk

Editorial

Happy New Year everyone —well at least, happier than 2020, we hope.
Of course we had hoped to be back with LWVH meetings by this time, but 'fate' had other ideas, and so it seems likely that things will not get much better until at least Easter. The committee, and Graham G7LMF in particular, have managed to keep in touch with TDARS Members over recent months, and quite an impressive series of on-line meetings (via Webex) have been arranged, with a range of guest speakers continuing, as listed on the page 1 programme. The details and Webex link is provided by Graham via the TDARS groups.io Reflector and e-mail. This service is only available to TDARS Members, but the Reflector and 2 metre on-air nets are open to all.

The Annual General Meeting (March 31st '21) is looming, and so the Committee is preparing for this year's AGM to be held on-line via Webex. After quite lengthy pondering, we think this is practical, if not ideal. Almost all current members have access to the Internet, but for those without, we hope to circulate paperwork to cover the essentials, with this Newsletter's listing of the Agenda and date being the first step (page 3)
The Committeeeee have recognised that nearly all paid-up members 2019/20 have remained loyal to the club, and paid their annual sub. for 2020/21, despite the loss of some benefits such as LWVH meetings and equipment loans. So it has decided, as a "one-off", to reduce the sub. for 2021/22 by £5 for each and every annual subscription paid after the AGM—ie from March 31st. 2021. The new rate will therefore be £25 (or £19 non-earners). Cheques or BACS are fine—contact treasurer Paul M0PLA (details at foot of this page) if required.
The Committeeee hope that those who have let their membership lapse this past year, (or are newcomers,) will also re-join TDARS after the AGM at the reduced rate. Please join us !

Telfordhams

MIV

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Itsy, Bitsy . . . .

@g3zme

From Steve G0FUW (of G-QRP fame): ***Suggested Winter Construction Project:-***
Walford Electronics do an SSB transceiver in two parts, the Ham receiver and the Hale transmitter that combine to form a very capable transceiver for £85. We used a previous incarnation as our Bath Buildathon project a few years ago. Most just built the receiver but a few added the transmitter. On 20m I rattled up over 30 countries with mine before other projects grabbed my attention.
Pluses; true construction rather than module wire up, Tim Walford is very helpful, range of accessory kits can be added as the project grows.
Minuses; LC VFO not as stable as DDS, single band, no enclosure provided

One of our Intermediate students put a uBITX together and was working the world during his training; it's an impressive radio for the price. Hope that helps.
73, Steve, G0FUW

Eye Protection for home constructors? Robin G1MHU recommends the following Amazon link for purchase (about £20)
https://www.amazon.co.uk/gp/product/B085DRKCWZ/ref=ppx_yo_dt_b_asin_title_o02_s00?ie=UTF8&psc=1

TELFORD & DISTRICT AMATEUR RADIO SOCIETY : 2019-21

CHAIRMAN: Simon Bird G0UFE (telfordslivewire@hotmail.co.uk Tel: 01952 401018)

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SECRETARY: John Humphreys M0JZH (m0jzh@yahoo.co.uk Tel:07824 737716)
TREASURER: Paul Athersmith M0PLA (paul.athersmith@gmail.com Tel:07966 969230)
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Committee: Brian G6UDX; Graham G7LMF; Ian M0IRP; Village Hall Committee Liaison officer Martin 2E0TRO. QSL Manager Paul M0PNN; Assist Curator: Chris 2E0EOH; Trophies/Certs: Martyn G3UKV.

Qtc: News & Information

TDARS MEETINGS EVERY WEDNESDAY EVENING HELD NORMALLY AT LITTLE WENLOCK VILLAGE HALL
NO MEETINGS AT LWVH UNTIL FURTHER NOTICE (Covid-19)

Please note: A current membership card may be required to borrow TDARS equipment. Please return borrowed equipment promptly .

The use of Webex online for TDARS has continued throughout the period and will continue until we can return to regular Meetings at LWVH. Also club nets (144.600MHz FM +/-)

Future speakers provisionally booked include Brian Nuttall M0OYG (pedestrian mobile), Heather M0HMO (The Long Mynd Mapping software), Dom Smith M0BLF (organising a DX-pedition), Chris Colclough G1VDP (Software for Am.Radio) and more in the pipeline.
But remember the note at the top of page 1—TDARS programme of events are "subject to change at short notice".

The *TDARS Annual General Meeting* takes place on WED. 31 MARCH 2021 at 8pm, via Webex. (Unless LW Village Hall becomes safely available before that date)
See also the editorial on page 2.

AGENDA :

1) **Apologies**
2) **Minutes of AGM held 27 March 2019, and Matters Arising**
3) **Chairman's Report**
4) **Treasurer's Report & accounts (2019-21) 2021/22 subscription rates**
5) **Appointment of Auditors 2019/2021 (covering 2 years)**
6) **Election of Society Officers and committee**
7) **Presentation of Awards and Trophies**

Any other items for inclusion in the Agenda must be sent in writing to the Hon. Secretary, John M0JZH, at least 2 weeks before the AGM.

Founder ***TDARS member Peter Sherwood (G4AUY)*** sadly passed away on 11 December 2020, aged 88 years. A remembrance service was held in Christ Church, Wellington (Dec. 21st), attended by Dave G8VZT and Martyn G3UKV. Pete was active on HF until October, and is remembered for his support of tdars over many years, as well as his presence on club /P expeditions in earlier years, including as camp chef extraordinaire (??) . . . ("burnt to a cinder" MIV)

Following the lucky draw at the on-line TDARS meeting of Wed. 23 December, the ***Winner of the brand new 2021 RSGB Yearbook*** (Callbook) was Don M6FHM, who has since received his valuable prize. It is likely this Free Draw will take place in future years too—so another reason to keep up your Membership !

GB3TF has just been re-connected to the internet, since the LWVH committee decided to change provider from BT to Plusnet. Just to clarify operation: Local FM via the voice repeater continues as normal, but if DTMF tone code #55555 is entered on the input, a link to hundreds of worldwide repeaters/stations is opened up, but you then need a further 5 tone code (lists available on the internet), all preceded with the hash key (#) to select a particular link (eg #18632 for the Chester repeater GB7WX). At the end of using the facility, please use code #99999 to break the internet link.
IMPORTANT NOTE: whilst local use of Fusion (C4FM) is available for local 'TF QSOs, it is NOT available via the internet option. Only standard FM. Unfortunately, this is Yaesu's Wires-X software decision for reasons not known. Finally, also note that the licence holder (NoV) for GB3TF is now John M0JZH (replacing Martyn G3UKV).

Easy, low cost 2m /P Antenna by Peter G4URT

Some time ago I started to look around for plans of a small, easily transportable 2m yagi that I could take up to my local hill (Grinshill) and actually use that FT817nd that I bought several years ago (it was very cheap...).

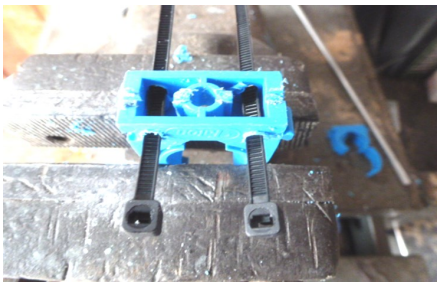
After asking on the TDARS forum and doing some googling, I decided on a design from the following site :

https://www.qsl.net/dk7zb/start1.htm

I decided to build the 4 element version for one simple fact – this one was the only small design that used 1/4" aluminium rod and I had 4m left over from my previous antenna building antics. Right from the start cost was an issue – after spending many hundreds of not so hard-earned pounds on a 40' tower and all the associated costs the challenge was to make it as cheap as possible. After all, how many times was I going to use it bearing in mind I don't do wind or rain !

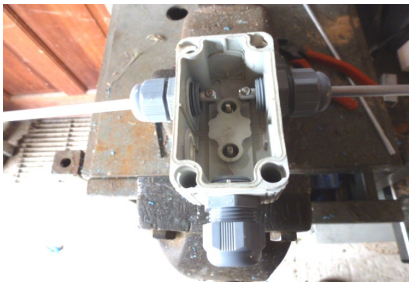
A quick furtle in the garage turned up some RG58, some 20mm pipe clamps left over from putting some 20mm MDPE water pipe along the house, some 20mm conduit and a few 20mm threaded glands for waterproof boxes. I've always been a big fan of Wiska boxes but they were always used to be a bit big at 85mm square. Now they have bought a range in that is 85 x 49mm so much smaller and ideal for the feedpoint. And when used properly they are good to IP67 moisture ingress. The beauty of these boxes is that you can use the glands to support the driven elements. Just google ***Wiska 206 Junction box***. They are available locally at CEF (City Electrical Factors) and good ol' Ebay. So, along with various stainless nuts / bolts and a BNC plug. As someone who only uses VHF/UHF I do NOT, repeat NOT do PL259s. They are the spawn of the devil ! Luckily the FT817 has 2 antenna sockets which includes a 2/70cms BNC on the front. I then had everything apart from some enthusiasm to put it together.

So one wet, boring day it was down to the garage and some antenna building.....



First job was sorting out the elements. First picture shows triangular grooves filed into the pipe clamp to seat the 1/4" rod and the cable ties used to hold the elements firm. Shimples…

Next was fabricating the feed-point using the Wiska box. Although the photograph doesn't show it, with this method the driven elements tend to droop either side of the box. Not really a problem at this low power – just stuff a small washing up sponge in the box to fill the volume and this will force the elements up. Just play around with amount of sponge to get the right angle.....crude but effective. Then belt and braces with some liquid rubber suitable for electrical sealing around the driven element connectors / coax. A previous thread on the TDARS site had identified 2 readily available liquid rubber sources – Innovantennas and SOTABeams.



Spot the difference !
(the array is not pointing down – it's an optical illusion).

A check on the beacons produced the following results :

GB3SEV – Loud (not surprisingly)
GB3VHF – Weak but easily read
GB3NGI – Very weak but readable

I'm quite pleased with these results as my site isn't exactly high and I had to contend with hedges being in the way. I have not used 'S' points as they are largely irrelevant in this scenario.

No other UK beacons could be received due to house in the way to the south and a really horrible RF noise source to the north.

So there we have it. For a small outlay using bits I already had laying about I've a really serviceable 2m beam for /P work. I could have made for a nil outlay if I'd used wood to construct some sort of DE holder, but I prefer decent mechanical strength and the waterproofing capability the Wiska box gives.

Now to get some decent weather and some enthusiasm for a slog up Grinshill ! ! !

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Power Musing, Measurements and Ramblings from Criggion

by Robert GW6GBY (aka 2W0FOI)

Shortly after winning 9dB more power with my G6 licence, I decided to buy a second-hand linear amp for my primary usage, SSB telephony on the 80/160m bands. In main this is to overcome the inadequacies and practical limitations of using poor, fractional wave-length, horizontal antennas (at such long wavelengths) supported from height challenged (less than ¼ wavelength above ground) masts or towers (P30, P60). A 100 watts out of my transceiver into the AMU, (which absorbs 20+ watts), does not cut the mustard on a nation-wide radio net, late morning with heavy QRM/QRN.

AMU losses.
My faithful G5RV has an impedance of 22 Ohms and a VSWR of 1.8:1 @ 3.71MHzs. Using an L match to bring the impedance to a more manageable 55 Ohms and a VSWR to 1.39:1 into the AMU. At higher powers (200W+) I lose nearly 20% 40W, taking into account measurement errors due to the VSWR's and impedance mismatch into antenna (the unmatched output side of the AMU). Who said AMU's were mostly loss-less?

A bit of Sky Gazing
Just imagine the size and weight of a 160m HF beam or log P beam with 20dBi gain !! The 20m to 6m SteppIR beam I have on loan from the club is big enough !! Making something so large, steerable and survivable in UK weather conditions would be quite a challenge! Some of the biggest HF curtain arrays ever built (imagine 4 football field size arrays arranged in a square, supported perpendicular to the ground from towers) gets some way down that path. By the mid-1960s, it was possible to produce an effective radiated power (ERP) of just over 30MW from a single 250kW transmitter. A gain of some 20dBi. I suspect RF safety was not as an important consideration as it is now. I'm sure OfCOM would be sending someone round with their field strength meters.

In the early days of Criggion (1940's), rhombic antennas were used for the international point to point radio links (30 or more) between the two Short Wave A/B sites. The support poles (mostly wooden) were so positioned to 'beam' in specific directions. A bearing of 80° from the UK, for example, allowed broadcasts to be beamed to Malaysia, India and Sri Lanka. At 7 MHz a gain of around 10 dBi can be expected from a 320-metre-longwire rhombic (end-to-end length). That's why Criggion (a modest sized radio station) needed 400 acres of land.

Back to the main plot.....

Not having such vast space or deep pockets to build rebuild the Criggion MW 700' mast or throw up some Rhombics, I opted to buy a Yaesu FT2100Z linear off Martin G7WBX (from our club). While getting to grips with driving the linear, I realised I had nothing that would accurately measure the power much beyond 100W. What's more I had no simple way of measuring (or viewing) linearity or harmonic content on SSB.

To date I have been using (i) a 100meg B/W oscilloscope with a x10 probe on the antenna feed and (ii) a spectrum analyser (terminated in 50 Ohms) for power measurement, spectral content and harmonics. The former has limits to 1000V 10V per division x 10 with a x10 probe, the latter method is limited by cascaded 20dB and 33dB attenuators I have to hand, each rated @ 50W each continuous. Not being one to buy new out of the box, I decided to opt for a kit build power/VSWR meter. For accuracy, to use a PIC based measuring system adopting dual slope A to D conversion (DVM style). I found the best suitable to be a Chinese part-built kit, which professed power measurement 3-30Meg to 1000W and SWR measurement with a programmable safety limit/cut-out/limit. I dismissed a note that said **BUY THIS, ONLY IF YOU KNOW WHAT TO DO WITH IT.** I have taken more notice since, but it's come too late !!

The power/SWR meter is in 2 parts. (i) the measuring part, using a PIC, PSU reg and display. (ii) the bridge utilises a printed circuit board with resistor networks to select the desired sensitivity from the installed resistor ratios (see photos—overleaf)). The cost was around £50.00 plus 4 or 5 hours of construction and fiddling. You will be pleased to know the PIC comes completely programmed. The display board sits piggy back on top of the measuring board and is the same display I used with an auto 7x7 ATU built through the club. Once you have built the kit up, decided on the maximum power to be used and set the ranges accordingly (selecting suitable resistor ratios) both for the power (around 69) and VSWR resistors (FWD & REV values are the same). I had problem with the VSWR resistor ratios. The only values that give adequate sensitivity appeared to be 2.2K and 440K Ohms.
You then need to set up (configure) the PIC ratio values to equal the resistor ratio values, using the menu and up/down keys. Following which hopefully, accurate readings ensue when powered from 12VDC. ***(photos overleaf)***

Continued >>>>>>>>

Thanks for Newsletter input this time:

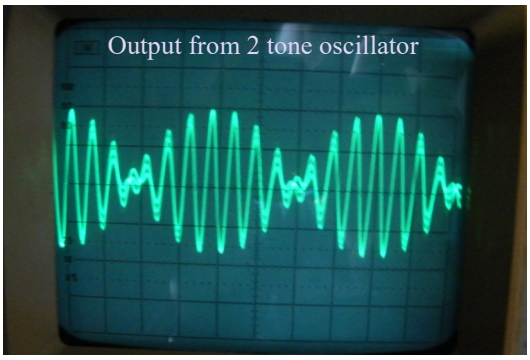
Robert GW6GBY, David M0YDH, Peter G4URT, Paul M0PNN, Paul M0PLA, Graham G7LMF, Paul G8AQA, Phil G3SES
Next edition Mar / Apr. 2021
Please keep it coming— Don't just leave it to someone else !

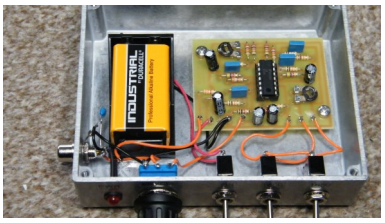
Unfortunately, the readings obtained for power for the particular kit I brought only measures RMS power values (not PEP); a scope is the only really accurate measure of PEP I have, which brings me to another salient point, the use of a "dual tone oscillator" to allow accurate power measurement for SSB. I would not recommend the kit I bought as you need a lot of additional test equipment to properly calibrate it. It's definitely not plug-and-play and requires a lot of fiddling with to get it working right. By far the most difficult part of this kit is cutting the front panel square for a snug fit on the display and sorting the buttons out so they can be used...me thinks !! My box is on order so I have the display hole cutting to look forward to...

Two Tone Oscillator (Kit from Spectrum Communications)

It is very easy and quick these days to knock up a two-tone audio oscillator for checking SSB power levels and emission linearity. But most small projects I build generally consist of a hash of wires and vero-board and are not always reliable, suitably boxed or portable. I saw a British Made kit from Spectrum Communications for around £30.00 which seemed to fit the bill. I could not build the same kit myself for this sort of money, so I brought one and built it up.

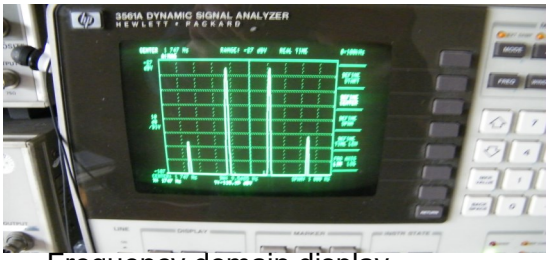
The oscillator is quad op amp based (LM324M) plus a hand full of components. The power (PP3 battery) and two tones are switchable on/off. Frequency is 1600HZs and 1850HZs (measured @ 1622Hzs and 1857Hzs). Distortion is low with IP's better than -50dB down (see photos). The output seems a little high for a mike input as its almost at the lowest end range of the output level pot. The challenge now is to couple the audio O/P into various transceivers, as there are several different mic/audio input arrangements between the new and old trans-ceivers I have to hand. I have considered trying acoustically coupling to the STD mike, but that would introduce a lot more distortion and inaccuracy without messing about with proper acoustic enclosures. Instructions are fine, and as usual I ignored most of them.....





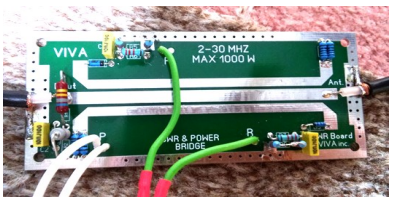
Inside 2-tone project box

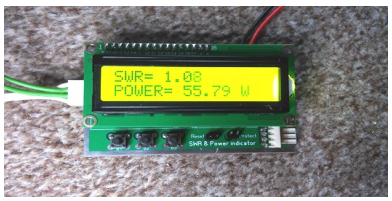
Neat, completed 2-tone osc. kit



Frequency domain display showing 2 tones plus IP's

Incidentally, I have recently noticed quite a few stations (as viewed on my own and on-line SDR receiver websites) generating 10KHz wide SSB signals, even more with lots of splatter probably over-driving linears. One assumes the operator is un-aware of what he transmits. Had we used such spectrum monitoring systems 50 years ago we would probably have been horrified at what we saw being transmitted. But then again there was probably a lot more room on the bands to keep one's distance from such emissions….and definitely no VDSL interference either.





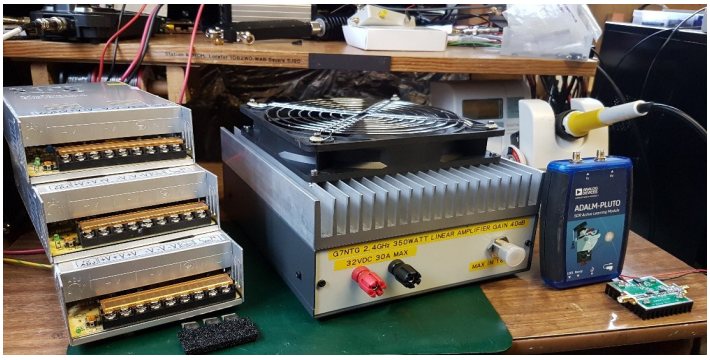
The completed two parts of the SWR and Power measuring kit . (see previous page)

Using my new 3D Printer—by Paul M0PLA

As you probably all know I am a very big fan of SOTA and the sooner I can get back up into the hills the better. I think most of you, if not all of you, know that I like to build my own antennas. I have spent lots of money over the last few years with Sotabeams with the odd bit and that.
Well, just before Christmas I decided to buy myself a 3D Printer, As I found out, they are not the sort of equipment to buy, take out of the box and it works Hi Hi : ***No they Don't. . .***
After many many hours of playing and adjusting, I think I can master it now to an extent. I have also been busy trying to learn some 3D Cad software called Fusion 360. This is free software for teaching and self use. I have decided to have a go and try and copy the antenna cable winder that I use from Sotabeams and I think they have come out ok. John (MOJZH) said try putting your callsign on them as well, so I have managed to do that as well.
If anyone would like to own one please let me know and I will see if I can print you one. Paul 'PLA.

Update on QO-100 developments at M0YDH—by David M0YDH

Pictured below are pieces of equipment for the transmit side here at M0YDH to the QO-100 satellite. The amp made and commissioned last week by Jim G7NTG in Kettering is brand new. It cost £400 delivered. I received a very nice inventor award at work so was able to place the order.
On the left are three 12V 30A power supplies off EBay. I think they were £53. There are 3 Schottky diodes rated 30 for reverse polarity protection. I'm going to adjust each to 10.67V then wire them in series. Ron gave me a file server rack case over a year ago so that's what I have for a box.
Right of the amp is the signal source - the ADALM PLUTO SDR. This can be controlled by SDR-Console software on a PC or for DATV with a BATC Portsdown transmitter. Far right of picture is my repaired driver amp with low pass filter bought as a kit from AMSAT UK shop. I blew the first transistor via a short from un-melted solder paste. The transistor is a Mini-circuits part and I've had free components from them in the past via their remarkable EZ Samples programme. That's how I found a replacement part. The second picture is the amp under steady test with 1.2mW drive using my new sig gen and power meter.
The big amp needs only 180 mW of drive to output 350W at 2.4GHz. The output connector is a 7/16 which is the largest connector used in amateur radio activities especially for microwaves. G7NTG sold me 12m of surplus LDF4 -50 coax. The centre conductor looks to be a solid 4mm diameter of copper. I envisage putting 60W max for TV transmissions into the 1.1m dish. Less than 10W will suffice on the narrow band of QO-100. That won't melt the coax. Control of power will be with a programmable attenuator after the Pluto. The transmission can only be at the level of the beacons on the wide and narrow band transponders.
There are other safety considerations that I have in mind.



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Keeping a Radio Club active by going online during 2020
by Graham G7LMF (also submitted to WAB newsletter)

COVID-19 has had a profound impact on society as we know it in 2020 and during 'lockdown' and the consequent limits of movement and mixing (including the closure of many buildings and places where radio clubs meet) as a result of this Telford and District Amateur Radio Society (TDARS) quickly decided to keep the club active with a programme of virtual talks and ragchew meetings online.
TDARS chose Cisco Webex as our online video meeting platform (others such as Zoom, Microsoft Teams, Google Hangouts are also available) to enable us to embrace the RSGB 'Get on the air to care' philosophy by bringing in some members who are unable to get to meetings even during 'normal' times.

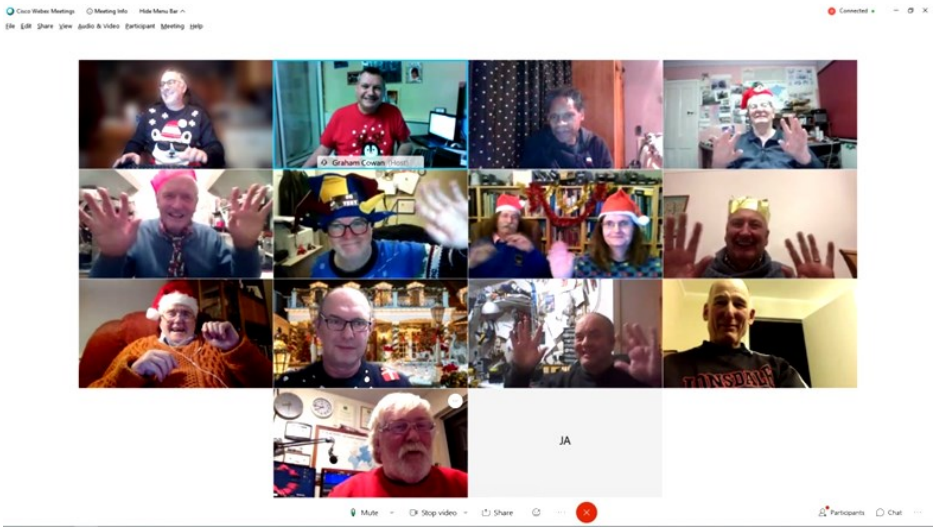
By asking club members what subjects they would like covered and by looking at what various talks where already available via YouTube including the RSGB Conventions, RSGB Tonight @ 8 series, GQRP Convention and talks from other clubs such as Mid Ulster, Denby Dale, Thornbury & South Gloucestershire and Chester to name but a few, TDARS Exams Secretary, Graham G7LMF, put together a varied set of talks that cover the spectrum of interests of members within the club. This was done by getting in touch directly with the speakers and just asking. It was pleasantly surprising how many are more than happy to give their talks online to clubs.

The 'TDARS Online Talks' series began shortly after the first lockdown began with Chris Colclough G1VDP and an 'Introduction to the RSGB Beyond Exams scheme', which many members took up enthusiastically. Over the coming months, there have been many more talks online. TDARS were treated to club member, Martyn G3UKV recalling his 'Memories as an ex-RSGB regional Rep' and ex-member Simon MW0NWM who enthusiastically spoke on 'The Birth of Broadcasting in Britain'. During the summer when the club was unable to do real-life outdoor contesting we put on a dummy contest to show potential contesters how a contest worked. In between talks the club had rag-chew weeks which also took in members via the regular 144.6MHz, FM net.

Other TDARS club members gave talks; Eric M0KZB introducing the NanoVNA, Heather M0HMO describing how Slow Scan TV (SSTV) worked and programmes used to decode signals – particularly popular with members later able to use their new found skills to decode ISS SSTV transmissions.

The 'Shack Tours' evening was an interesting session where members with well-established and well stocked shacks gave a video tour explaining what they were showing. This was followed later by Robert 2W0FOI who gave a guided tour of his Criggion buildings (https://en.wikipedia.org/wiki/Criggion_Radio_Station) and discussed the potential for HF contesting there.

The club welcomed Ian Evans GI0AZB who told members what RSGB OAS is and what it does. The club has also been making use of the "RSGB Tonight @ 8" videos by group viewing Steve Nichols G0KYA talk 'Antennas for small gardens'.
More talks including 'Building up your QRP station' by Steve Hartley G0FUW, 'Battery Technology for QRP Portable Operation' by Bill Coombes, G4ERV, 'The Raspberry Pi' by Mike Richards, G4WNC, 'How to check for VDSL RFI' by John Rogers, M0JAV, 'Getting started on QO-100' by Dom Smith, M0BLF and 'My World of VHF' by Tim Kirby, GW4VXE filled the cold dark winter months and TDARS rounded off a very strange 2020 with our traditional Mince Pie & Mulled Wine Social (in Christmas Jumpers) but this year we took this online as well. (4 WAB book holders included).



With rag-chew evenings, radio nets on both VHF (144.600FM / 144.325 SSB) and HF 3.657 at 08:45 on Monday and Friday) and talks bringing in over 20 members weekly and full committee meetings taking place online TDARS has had a good year, albeit never being able to take the place of the 'normal' face-to-face meetings.
Although the vaccinations are now being rolled out TDARS don't foresee a return to face to face meetings until the spring of 2021, so online meetings will continue in the New Year with more talks planned including 'Running a Special Event Station' by TDARS club Chair Simon Bird, G0UFE, 'Operating Pedestrian mobile' by Brian Nuttall, M0OYG, TDARS member Heather M0HMO will give an introduction to her RSGB award winning mapper program, 'Software for amateur radio' by Chris Colclough, G1VDP and 'DXpedition' by Dom Smith, M0BLF.

January and March usually sees the TDARS Under-a-Fiver Construction Competition and Main Construction Competition but 2021 will see us trying to bring those online complete with online voting to choose the winner of each competition. March 2021 will also see TDARS having a go at running our AGM on-line.

So as you can see, it has been a very strange year, but TDARS are already looking at continuing providing the online talks once we can get back to meeting in person, but by also being on-line those that can't personally attend can get to join in.

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The Quadrantids Meteor Shower 2021 -by Peter G4URT

I actually got my act together this time and had a go at using the Quadrantids Meteor Shower at the beginning of January for a bit of meteor-scatter propagation. The meteor shower is caused by the remnants of asteroid 2003 EH burning up in the atmosphere. Unlike some of the other major showers such as the Geminids and Perseids the peak of activity is usually over just 1 day, hence the traffic on the ON4KST chat room was somewhat hectic on the 3rd of January!

There are 2 common data modes that are used for MS on 2m. That is MSK144 and FSK441 with MSK being the new kid on the block. I'm not an expert by any means on the relative merits of the modes but it seems from looking on the KST chat room MSK is more for better conditions with longer / stronger reflections and FSK when conditions are not as good with shorter bursts (called pings). I just used MSK144 as 1) it worked and 2) it's a question of WYSIWYG. With MSK it either decodes a burst or it don't. With FSK there sometimes needs to be a certain degree of 'interpretation' of the decodes. I'm not really in a position to confirm or deny the relative merits, but sometimes on the chat room there were some strong points of view between the relative camps with the FSK proponents being the most vocal!!

Anyway, on the 3rd of January I worked 4 Spanish, 4 Swedish, 2 Polish and a solitary Finn (OH7XM) for an ODX of 1875km. Anything over 2000km is reckoned to be good and I did decode a couple of Ukrainian stations working other stations.
The next shower of note for the Northern Hemisphere is the Lyrids in April. I could of course have a go at random meteor-scatter, but as the best time is early morning and as I like to fester in my pit that approach really isn't on this time of year with the dark mornings.....

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And Finally . . .

E-mail (16/11/2020) from new arrival **Phil Stevens G3SES**:
"Please pass on my regards to Dave. I remember cycling to his home in Wellington for some radio junk he gave me.
The main driving force of the Shrewsbury Society was Dr. Ken Jones G3RRN (Church Stretton). Others involved in those early days were Don G3UQH, John G3KPP, Syd G3VKX, Stan G4LU, Stan G3OMX (all SK) and many others whose names and call signs I am not sure of. We were scattered over a very large part of the county so QSOs on Top Band kept us in contact.
It is interesting that you (G3UKV) originate from Cheltenham. In 1964 I had an interview at GCHQ for a post as a radio technician which was successful. I turned down the post as I got a similar job at RAF Cosford.
The main part of my career was in laboratory work. You can see more details about me on my QRZ page.
Thank you for the Newsletter but I do not recognise any names or call signs. I knew a few amateurs who were operating in the Wellington area before 1965, such as Ben,G2FSP, John G3OEA and Maurice G3JCX and Roy G3MVK, again all SK.
I am having great difficulties getting reliable operating time at the moment, so I shall not be able to join the net. This morning I was on the gable end of the roof repairing yet again my flimsy doublet antenna. My main rig, a Kenwood TS950 has developed an intermittent TX fault, so I have had to fall back to using my even older TS940.
You may certainly use my reminiscences in the club Newsletter. Perhaps some of the club old timers may even remember my CW and AM going out on 160m and 80m from Donnington.
Finally, I have attended the Telford Convention for many years, from the days it was held at the Fitness and Racquet Centre. It was sad that this year prevented a physical meeting, and I am not into using Zoom. I am also a member of the GQRP club."

Some members' recommended website links:

https://www.youtube.com/c/UKMicrowaveGroup (from G8AQA) Mini VNA presentation

https://www.youtube.com/watch?v=59WQIRvezzI (via G4URT) Collapse of giant Aricibo dish in Porto Rico

https://youtu.be/Ivr9VbSgjUU (via G7LMF) Making DF receive loop article

https://www.fair-rite.com/wp-content/uploads/2020/10/Brock-Fisher-April-2016-QST.pdf (via G8AQA) Solar Panels

http://www.nlsa.com/nets/moon-net-help.html (via G8AQA) Useful Moon Net link